

HARLOW TEMPLE 1985\9

Bone report

The animal remains from the 1985\9 excavations at the site come mainly from occupation scatter and make-up levels between the cobble-layers and floors of the courtyard and side-building area. The preservation of the bone itself is good but the fact that they are from scatter and levelling rather than from rubbish pits or deposits, combined with the high incidence of fragile bones from young animals provides an assemblage composed for the most part of fragmented bone and separate teeth. That the ring gulley (a sheltered environment originally) produced noticeably whole bones compared to other contexts emphasises the trampled-upon and redeposited appearance of most of the assemblage.

Phasing of the bones

By the recovery context and datable associated material most of the bones can be arbitrarily attributed to phases of the site occupation. The 'Pre-temple Celtic', the 'First Temple', the 'Second Temple' and a 4th.c. 'Late' phase. Others could only be grouped into those from the 'General 1st. to 4th.' century occupation and those from the 'Upper and Disturbed' deposits. A few further specimens came from the underlying 'Bronze Age' and 'Early Iron Age' features. (Table No.1)

Identification

The number of specimens identified as to species and anatomical identity is 6142. Unidentified fragments number 7286 and are composed of 378 (5%) from heavy bones (cattle, horse, large pig etc.) and 6908 (95%) from lighter bones (sheep, small pig dog etc.).

Table No.2 gives numbers of specimens identified by species for the phases described. As in previous work on material from this site (Legge and Dorrington 1985) no attributes of goat have been observed therefore all caprinae remains are taken as sheep.

Species and numbers present

Sheep pig and cattle are the main species and ratios of these in phases, by specimen count and minimal number of individuals present (MNI), is given in Table No.3. The ratios between the species vary little through the phases. Sheep form about 80% in all phases with pig more numerous than cattle by specimen count and MNI in all but the Belgic, and here the smallness of the sample may be obscuring their relative importance.

Table No. 4. shows the ratio of adults to juveniles and, as a predominance of right hand elements are noticeable Table No.5 gives percentage of dental specimens by species that are right hand (bone percentages are slightly smaller but being from fragments are less likely to give a true picture).

Horse make up 0.5% of identified material and spread through the phases are mainly separated tooth specimens

Dog remains are few, only 0.2% of specimens, and dog gnawing occurs on only 1 to 2 percent of specimens in any phase.

Red Deer are represented mainly by fragments of antler but from the 'General' material came the beam of a large antler having the brow and bez tines intact and the base of the tez. This is from a stag of at least 5 years, with its measurements coming in the upper end of the

range given by Juliet Clutton Brock (1984) for antler picks found at Grimes Graves and Durrington Walls. Having a finely marked striated surface it would, when whole, have been a worthy trophy of the chase and as such perhaps a worthy gift for a god?

Bird bones, around 1% by specimen count through most of the phases are mainly of small domestic fowl, ducks and geese. But from the 'General' material came an ulna having all the characteristics of a raven, bringing the art of augury to mind. Perhaps at this point should be mentioned the fine soil deposits packed with small rodent bones, found between broken roof tiles from a scattered layer. These are obviously from owl pellets deposited in or on a roof, whether while the building was in use or after abandoned is undeterminable, but again one remembers the place of the owl in early mythology and no doubt they would have been welcome residents at a temple. The bones themselves are from a mixture of species of vole, shrew and mice and are therefore not the remains from a colony of any of these creatures.

Remains of rats, mice, toad or frog and rabbits appear in small numbers, with the usual attendant problem of natural contamination that must have occurred at various stages of the sites history by these burrowing or hole seeking animals.

Apart from the cremations human remains are represented by two teeth found in the early 1st c. fill of the ring gully; a premolar worn comparable to that of a present day male of about 20 years old and a canine with wear of a 30 to 40 year ditto. Both healthy teeth.

Analysis of main species assemblage

Given that the make-up of any bone assemblage must reflect the usage of animals and their carcasses at the site. The religiously-based differences in both usage and value placed on animals of varying species, age and sex, and perhaps any preferential apportioning of carcasses, should be observable at a sacred site such as the Temple. On comparison of specimens present for the three main species (sheep, pig and cattle), by quantity, age groups and left or right handedness, one can see distinct patterns of preference.

Cattle, the least important by quantity, have (accepting evidence from the small number of individuals present) no clear preference for adult or juvenile animals and do not appear from the handedness of specimens to have been subjected to a selective process affecting preservation of left or right hand elements. Young and adult animals present (Table No.4) are about equal and hand ratios (Table No5) change prominence by phase and are near equal for the whole assemblage.

Pigs have a preference of adult over juvenile at a ratio of over 4 to 1, seem to be exclusively male and have been subjected to a selective process leaving a right hand predominance of dental specimens (over 3 to 1 in the main phases).

The sheep, by quantity the most important animal at the site, have a preference for young animals over adult by more than 4 to 1 (given the density and size advantage for survival and recovery of old over young teeth the actual ratio would surely have been larger), and some selective process has been at work to leave 3 right hand specimens for every left.

Inferences drawn

So the inference of the analysis is that sheep were the main animal used with a preference for young animals. That when pigs were used adult males were preferred, and that both these species were subjected to a slaughter or selective process that removed a predominance of left

hand elements from preservation at the site. That with cattle there was no preference for young or old and they were not subject to the right or left hand selection.

Given the nature of the site it is reasonable to propose that this implies that sheep were the main species used for sacrifice with young lambs preferred to older animals, but that when pigs were used adult males were preferred (the squealing of piglets is perhaps not conducive to a sacred atmosphere). The lack of left hand specimens could be the result of special proportionment, deposition or destruction, e.g. the left hand of carcasses being allowed to be taken off the site, deposited in a special place on site (that has not been found or not documented in an earlier excavation) or destroyed (burning springs to mind but the number of burnt specimens found is very low). That cattle are not subject to any age preference or hand selection suggests they are either ordinary food remains or that both young and old were valued as a sacrifice, and the smallness of the sample could easily remove any right hand bias.

Age structure of sheep present

The ratio of immature sheep (85%) indicates we are not dealing with all the animals of a population but selected individuals drawn from one or many outside populations, brought to the site to be killed.

The evidence for the age structure comes from the dental specimens. The minimum number of juveniles is represented by the 310 right hand lower 3rd. milk molars (m_3) found loose or in jaws. This triple cusped tooth is replaced at around 18 months by the permanent premolar (P4). The adults are represented by the number of this latter tooth present together with the number of right third permanent molars (M_3), again loose or in jaws, with allowance made for pairs of these two that may have come from the same jaw.

The theory and methods of ageing young sheep by tooth eruption and wear patterns is well set out in the earlier report on material from this site (Legge and Dorrington 1985). With the present assemblage all teeth were allocated to wear stages by comparison to those used by Payne in his work on sheep from Asvan Kale (Payne 1973). As in the earlier study the majority of the m s fall into a tight group of early wear stages (Fig.1). When found in jaws with the permanent molars present these have the 1st permanent molar (M_1) with light wear and the second (M_2) not or just erupted through the bone. A smaller group of jaws have the M_1 at a late wear stage, the second molar (M_2) in early wear and the m in late wear or replaced by a permanent premolar. The later wear stages having a longer time scale, and the more variable wear among individuals as they get older, gives these a looser grouping (Fig.2). The wear stages into which the main group fall can be equated to those of animals at an age of around 6 to 8 months. The older group centre perhaps on ages around 18 to 20 months with the adults ranging from 2 to around 4 years old.

Seasonality of the lamb slaughter

Measurements taken of the third milk molars showed no correlation between wear states and height to length ratios, differences in original tooth size and proportions obscuring the small amounts of wear of the early stages. This would suggest the size of the lambs was not a main selection point. So the predominance of animals from a narrow age group must be the result of either a preference for lambs of that age or from a predominance of sacrifices at a time when the pick of the young were of this age group. Given that the peaks in the age at slaughter have a 12 month spread in age, that the majority were killed

at around 6 to 8 months after birth and that lambing took place in early spring the evidence points to a seasonal slaughter in the late autumn.

The results of the study of this material from the 1986\9 excavations matches that from the W.E.A.G. 1960s material and reinforce the view put forward there that the bones result from ritual slaughter and that a single yearly autumn festival involving the sacrifice of young sheep could be origin of most of the assemblage.

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'Belgic'	Pre-temple c.50 B.C. to 80 A.D.
'Temple 1'	c.80 A.D. to 120 A.D.
'Temple 11'	c.120 A.D. to 300 A.D.
'Late'(4th.c)	c.300 A.D. to 400 A.D.
'General'	General occupation c. 1st. to 4th. centuries A.D.
'Disturbed'	Disturbed and upper levels

Table 1. Phases of occupation used and provenance.

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Phase	Sample	Sheep	Pig	Cattle	Horse	Red deer	Others
'Belgic'	(400)	79.5%	5.5%	12.0%	0.7%	0.5%	1.5%
		(318)	(22)	(48)	(3)	(2)	(7)
'Temple 1'	(1608)	84.8%	7.8%	5.7%	0.2%	0.0%	1.5%
		(1363)	(126)	(91)	(3)	(0)	(25)
'Temple 11'	(1109)	83.7%	10.1%	4.1%	0.3%	0.2%	1.8%
		(928)	(112)	(45)	(3)	(2)	(19)
'Late' (4th.c)	(1145)	80.5%	10.2%	5.0%	0.4%	0.3%	1.8%
		(922)	(117)	(57)	(5)	(3)	(41)
'General'	(1107)	77.9%	10.5%	7.6%	1.0%	0.5%	2.3%
		(862)	(116)	(84)	(11)	(6)	(28)
'Disturbed'	(723)	83.5%	9.1%	5.1%	0.4%	0.1%	1.6%
		(604)	(66)	(37)	(3)	(1)	(12)
	(6092)						

Table 2. Percentages and number of specimens (in brackets) by phase and species.

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Phase		Sheep	Pig	Cattle
Belgic	spec.	318 (82%)	22 (6%)	48 (12%)
	MNI	18 (72%)	3 (12%)	4 (16%)
Temple 1	spec.	1363 (86%)	126 (8%)	91 (6%)
	MNI	97 (89%)	9 (8%)	3 (3%)
Temple 11	spec.	928 (86%)	112 (10%)	45 (4%)
	MNI	50 (78%)	12 (19%)	2 (3%)
Late (4th.c.)	spec.	922 (84%)	117 (11%)	57 (5%)
	MNI	71 (85%)	11 (13%)	2 (2%)
General	spec.	862 (81%)	116 (11%)	84 (8%)
	MNI	79 (83%)	13 (14%)	3 (3%)
Disturbed	spec.	604 (85%)	66 (9%)	37 (5%)
	MNI	44 (85%)	6 (12%)	2 (4%)

Table 3. Number and ratios of main species in phases by specimen count and MNI.

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Phase		Sheep	Pig	Cattle
Belgic	Juv.	15 (79%)	1 (33%)	2 (50%)
	Ad.	4	3	4
		<u>19</u>	<u>4</u>	<u>6</u>
Temple 1	Juv.	83 (86%)	1 (11%)	1 (33%)
	Ad.	14	8	2
		<u>97</u>	<u>9</u>	<u>3</u>
Temple 11	Juv.	43 (86%)	3 (25%)	1 (50%)
	Ad.	7	9	1
		<u>50</u>	<u>12</u>	<u>2</u>
Late (4th.c.)	Juv.	63 (89%)	0 (0%)	1 (50%)
	Ad.	8	11	1
		<u>71</u>	<u>11</u>	<u>2</u>
General	Juv.	66 (84%)	3 (23%)	1 (33%)
	Ad.	13	10	2
		<u>79</u>	<u>13</u>	<u>3</u>
Disturbed	Juv.	38 (84%)	1 (17%)	1 (50%)
	Ad.	7	5	1
		<u>45</u>	<u>6</u>	<u>2</u>

Table 4. Numbers of Juveniles and Adults in phases using MNI.

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Phase		Sheep	Pig	Cattle
'Belgic'	R\h	84 (78%)	7 (78%)	5 (50%)
	L\h	24	2	5
		<u>108</u>	<u>9</u>	<u>10</u>
'Temple 1'	R\h.	509 (78%)	57 (77%)	11 (52%)
	L\h	141	17	10
		<u>650</u>	<u>74</u>	<u>21</u>
'Temple 11'	R\h	269 (73%)	33 (77%)	8 (62%)
	L\h	101	10	5
		<u>370</u>	<u>43</u>	<u>13</u>
'Late' (4th.c.)	R\h	357 (78%)	40 (61%)	2 (25%)
	L\h	90	26	6
		<u>447</u>	<u>66</u>	<u>8</u>
'General'	R\h	320 (76%)	31 (50%)	3 (33%)
	L\h	99	31	6
		<u>419</u>	<u>62</u>	<u>9</u>
'Disturbed'	R\h	183 (72%)	21 (62%)	4 (44%)
	L\h	70	13	5
		<u>253</u>	<u>34</u>	<u>9</u>

Table 5. Right and left hand dental specimens by phase.